would accordingly account for the fact that the vines suffer more from the fungus in the Western than in the Eastern States.—W. G. FARLOW.

Notes from the Mississippi Pine Barrens.—The winter has brought little cessation in vegetable activity. With the late blooming fall flowers, Asters, (especially *A. squarrosus* and *A. adnatus*), *Ascyrums* and *Lobelia glandulosa*, would open now and then, a belated Cape Jasmine, and a second bloom of several spring flowering plants. Pear trees and apricots bloomed throughout November; *Gelsemium sempervirens* on Nov. 22nd, and *Crataegus Pyracantha* during the first week of December. *Stellaria media* has been in continuous bloom. The thirty rainy days in the month of January gave no opportunity for rambles in the Pine Woods, but *Arabis Ludoviciana* appeared January 7th, and *Houstonia minima* on the 10th. The gardens were fragrant with English violets, Hyacinths and Narcissi, *N. Polyanthus* opening first on Christmas day. In *N. Tazetta*, the polymorphism of the perianth is very frequent, occurring with but three, or sometimes four divisions in the same umbel with the normal flowers. The number of stamens is also reduced to correspond with the perianth. From day to day an adventurous rose would open. The dainty *Rosa Banksiae* first appeared, January 19th. *Magnolia purpurea* and *Pyrus Japonica* were in bloom February 2nd, when the Yellow Jessamine was again opening in sheltered spots. On February 4th the ground, in moist places, was starred with *Ranunculus fascicularis;* the dark-eyed, purple *Houstonia* was everywhere abundant; *Viola primulaefolia*, *Prunus Caroliniana*, *Vaccinium tenellum* and *Allium striatum*, were blooming, and over the Barrens many mosses were beautifully in fruit.—MARTHA B. FLINT, *Brookhaven, Miss.*

New Species of Fungi; by Chas. H. Peck.—CANTHARELLUS MORGANI.—Pileus thin, plane or centrally depressed and subinfundibuliform, glabrous, red, the margin involute; lamellæ narrow, decurrent, dichotomously branched, whitish; stem equal or slightly enlarged above, solid, paler than the pileus; spores minute,subelliptical, .00016—.0002 of an inch long.

Plant 8–12 lines high, pileus 6–10 lines broad, stems 1–2 lines thick.

Under coniferous trees. Vermont. *A. P. Morgan.*

This is a small species resembling *C. Guyanensis* Mont., which. according to the description, differs in its thick coriaceous reddish-orange pileus, yellow hymenium and thick corneous fistulose stem. The pileus in our plant has a light-red or pinkish-red color, and I do not detect any peppery taste to the flesh.

POLYPORUS FRAXINOPHILUS.—Pileus sessile, thick, corky, more or less ungulate, somewhat decurrent, concentrically sulcate, rimose

when old, the first year whitish, then gray or cinereous, finally black, the margin obtuse, the substance obscurely zoned within, at first whitish, then isabelline; pores medium size, stratose, nearly plane, subrotund, the dissepiments obtuse, entire, whitish; spores white, broadly elliptical, .0003–.00035 of an inch long, .00025–.0003 broad.

Pileus 2–4 inches long, 1–2 inches broad.

Dead or languishing trunks of ash trees. Dakota. *C. W. Irish.* Arizona. *C. G. Pringle.*

This Polyporus belongs to the FOMENTARII. It varies considerably in shape, some specimens being almost as much flattened as the thicker forms of *P. applanatus*, others being as thick as the ordinary forms of *P. fomentarius*. Specimens three or more years old are somewhat tri-colored, the oldest part being black and full of chinks or cracks, the margin whitish and the intermediate part gray or cinereous. The annual additions are separated by concentric grooves. In the Dakota specimen the annual additions are much broader than in the Arizona specimens, and the pileus is more flattened and thinner. The interior substance is at first whitish but it changes with age to a brownish-yellow or isabelline hue, thus forming a connecting link between the second and third sections of this tribe as given in the Epicrisis of Fries.

MERULIUS RUBELLUS.—Pilei mostly cæspitose, imbricated, sessile, dimidiate, soft, somewhat tenacious, tomentose, deep-red when fresh, paler when dry, the margin usually undulate, inflexed; hymenium whitish or cream-colored, the folds much branched, porous-anastomosing; spores minute, elliptical, colorless, .00016–.0002 of an inch long, .0001–.00012 broad.

Pileus 2–3 inches long, 1–2 inches broad; tufts sometimes six inches long.

Decaying trunks of beech trees, *Fagus ferruginea*, in dense woods. Near Cincinnati, Ohio. December. *A. P. Morgan.*

This is a beautiful species, similar to *M. tremellosus* in the size and thickness of the pileus, but very different in color. The fresh moist pileus is a deep red (Indian red) but in drying it fades to a pinkish-gray or to a grayish hue with a red margin. The texture is almost floccose-tomentose, with the upper part red, the lower white. According to the notes sent me by Prof. Morgan, it differs from the description of *M. incarnatus* in the pileus not being "coriaceo," the folds neither "subtremellosis" nor "luteis roseisve," the mode of growth not "stellatim provenit" and the habit not being "ad cortices dejectos *Quercus albæ, falcatæ*," although fallen trunks of *Quercus alba* were more abundant in the locality where it was collected than were those of the beech.

PUCCINIA BRANDEGEI.—Spots none, sori amphigenous or caulincolous, often confluent, reddish-brown, distorting the stems and petioles; spores subelliptical, smooth, .0011–.0014 of an inch long, .0008–.001 broad; pedicels short.

Living leaves and stems of *Corydalis Brandegei*. Colorado. *T. S. Brandegee.*

PUCCINIA BOISDUVALIÆ.—Spots indefinite, yellowish, often tinged with red or brown; sori few, scattered, amphigenous, brown; spores obovate or oblong-elliptical, obtuse, slightly constricted at the septum, smooth, .0014–.0016 of an inch long, .0008–.00095 broad; pedicels short, colorless.

Living leaves of *Boisduvalia Torreyi*. Santa Cruz, California. *M. E. Jones.*

UROMYCES JONESII.—Spots none; sori amphigenous, small, scattered, reddish-brown; spores subglobose to elliptical, verruculose, .0011–.0014 of an inch long, .0009–.0011 broad; pedicel short, colorless.

Living leaves of Ranunculus. Soda Springs, California. *M. E. Jones.*

The roughly warted spores and scattered amphigenous sori are notable features in this species.

TRICHOBASIS WYETHIÆ—Spots none; sori dot-like, abundant, often occupying the whole lower surface of the leaf, reddish-brown; spores subglobose or broadly elliptical, .0012–.0016 of an inch long, .0008–.0012 broad.

Living leaves of *Wyethia angustifolia*. Colorado. *T. S. Brandegee.*

TRICHOBASIS HELIANTHELLÆ.—Spots pale greenish; sori hypophyllous, numerous, generally most abundant along the midrib, reddish-brown; spores globose or subglobose, uninucleate, .0012–.0014 of an inch in diameter.

Living leaves of *Helianthella Californica*. Soda Springs, California. *M. E. Jones.*

Plucheas.—*Pluchea camphorata*, *P. fœtida*, and even *P. purpurascens*, DC., appear to be forms of one variable and widely diffused species. Is the plant of the Mississippi valley found growing anywhere far from subsaline soil, and is the root perennial? Is the root of *P. camphorata* ever perennial?—A. GRAY.

On the Power possessed by Leaves of placing themselves at Right-Angles to the direction of Incident Light: by Francis Darwin. Journal of the Linn. Soc., no. 112 (vol. xviii, pp. 420–455), published June, 1881, read Dec. 16, 1880.—Taking up this subject where it was left by his father and himself in the work on "The Power of Movement in Plants," Mr. Francis Darwin, in this paper, records his investigations and experiments made with a well-devised modification of Sachs' Klinostat, with the view of determining whether Frank's or DeVries's explanation of the position which leaves normally assume with respect to the light is the more